

## Acquiring the Data Needed to Support Defense Transformation

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### **ABSTRACT**

*There are several systems that are evolving to support the operational data needs of the warfighter. These include the Combined Information Data Network (CIDNE), Tactical Ground Reporting (TIGR), and the Civil Affairs Operating System (CAOS). However, there are several problems in dealing with these systems with respect to the analyst's needs. For example, the data that are collected by these systems are too atomistic, there are inadequate mechanisms for "rolling up" the data to deal with strategic questions, and the data are not used to project effectively into the future.*

*The objective of this paper is to explore the data needs for analysts to support senior decision makers in the context of Irregular Warfare (IW) and Stability, Security, Transition, and Reconstruction (SSTR) operations. To focus the effort, consideration is given to the issues posed by senior decision makers for Afghanistan-Pakistan. The result of the study is to formulate recommendations to provide the data needed by analysts to support senior decision makers.*

*To achieve that objective, the paper has adopted the following approach. First, it began with the twenty one questions posed by Major General Flynn, CJ2, International Security Assistance Force (ISAF). Second, it restructured the questions to identify sub-themes associated with these questions. This restructuring gave rise to the following sub-themes: narrative shaping and strategic communication; economics and corruption; security; situational awareness; Taliban-related; and rule of law, norm building, and governance. Each of the questions was analyzed to identify the data that are needed to address these questions. Subsequently, the paper identifies actions to implement these data actions. It critically assesses the recent proposal by MG Flynn to revise the intelligence process and it addresses several forthcoming data activities.*

*In summary, this paper identifies a set of data actions that are need to support the analyst in addressing the questions posed by senior defense makers. As an example, specific actions include taking steps so that the data do not reflect the "Western way" of perceiving the situation (e.g., asking people to write poems to express their perceptions). In addition, it suggests developing a new way for ethnographers to support the evolving form of warfare (e.g., undertaking a pilot effort in Bangladesh). Furthermore, the paper recommends changes to training of key personnel (e.g., civil affairs, operators) to make them more effective in collecting needed data.*

### **A. INTRODUCTION**

The paper begins by characterizing the goal and scope of the paper. As a foundation, we characterize the nature of the data problem to support analysts. That is followed by a discussion of the data workshop that was convened at the National Defense University (NDU) in the fall of 2009. Subsequently, the paper identifies the next steps that might be taken to acquire the data needed by the analysis community. The paper concludes

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14. ABSTRACT

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with an Appendix that summarizes some of the insights on data needs that were developed during the course of the NDU workshop.

### B. GOAL AND SCOPE

The goal of this paper is to explore the data needs for analysts to support senior decision makers in the context of Irregular Warfare (IW) and Stability, Security, Transition, and Reconstruction (SSTR) operations. The paper has been restricted in two key dimensions. First, the paper focuses on the data issues associated with the Afghanistan-Pakistan (AFPAK) Area of Responsibility (AoR). Second, the deliberations begin with the strategic questions posed by MG Flynn, J2, ISAF.

### C. THE NATURE OF THE PROBLEM

Over the past two years, there have been a number of workshops, conferences, and studies about the challenge of providing IW data for the analyst. This section briefly summarizes some of the major findings and recommendations from those events. The section begins with observations made by Dr. Michael Bauman, Director of the Training and Doctrine Command Analysis Center (TRAC). That is followed by brief overviews of the insights developed at the workshops sponsored by the Military Operations Research Society (MORS), the Human, Social, Cultural Behavior (HSCB) workshops, IW studies, and NATO-sponsored conferences.

#### C.1 Bauman Insights

Key insights on the IW data problem were provided by Dr. Michael Bauman In a recent interview (Bauman 2009) on the data problem.

- “The US military’s data collection efforts are in need of serious reform.”
- “Data collection is a cottage industry. We really don’t have a coherent program for gathering data in-theater, which, in my opinion, is missing a tremendous opportunity.”
- “There are a lot of people out there who believe that the data is out there, and all we have to do is analyze it. That’s not true.”
- “The data is incomplete in many instances, in terms of the context in which the data was collected, or what the consequences were.”

Many of these points were identified in recent meetings (see below).

#### C.2 MORS Workshops

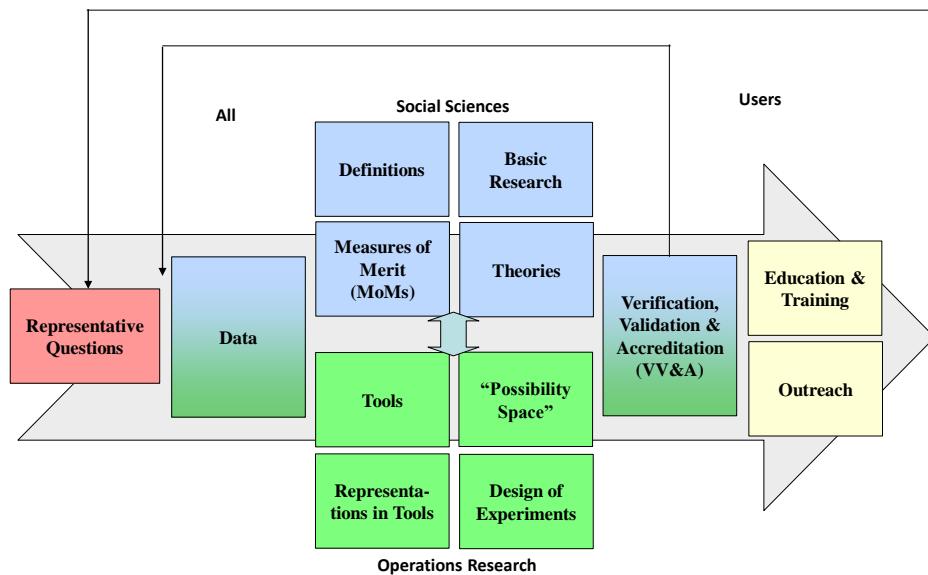
In December 2007, MORS convened a workshop at the Naval Postgraduate School (NPS), Monterey, CA. At the workshop it was noted that there is a need to cope with data challenges with respect to social environmental data and “on the ground” human intelligence (HUMINT) data. Subsequently, MORS convened a workshop at Tampa in the Spring 2009. At that meeting, it was noted that it was vital to Identify, create, and sustain credible IW data for the analyst. In addition, MORS is planning to re-address the question at a workshop in the Spring 2010 (see below). That workshop will address the question of metrics, assessment, and needed data.

### C.3 HSCB Workshops

The Center for Technology and National Security Policy (CTNSP), NDU, convened two workshops to address key analysis issues for HSCB issues. Those workshops served to decompose the problem and provide, *inter alia*, key data needs.

Figure 1 depicts the twelve areas where the HSCB workshop I identified key needs. These needs can be aggregated into groups that reflect the stakeholders that have the primary responsibility.

The process begins with the representative questions that are raised by the users. These questions can be decomposed into those that are posed by senior decision makers (e.g., appropriate for a future Quadrennial Defense Review) and operational users that seek to formulate and select preferred courses of action (COAs). For this paper, the strategic questions posed by MG Flynn, CJ2, ISAF, will be employed as a point of departure (see below).



**Figure 1. Decomposing the IW Problem**

The NDU workshop participants identified three basic data issues. First, they observed that existing IW data sets are diffused, difficult to find and access. Second, the data lack the necessary information to support analysis (e.g., adequate metadata, indications of pedigree). Finally, they observed that data are rarely ready for use; they require clean up, conversion to fit current needs.

To address these issues, the workshop participants identified six key themes for data needs. First, there is a need to develop appropriate IW taxonomies and ontologies. Second, it was observed that there is a need to implement efforts to *tailor* IW data to satisfy the intended purposes. Third, it is important to perform and



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record data verification and validation (V&V) efforts (e.g., integrity, consistency, reliability, source) as metadata. Fourth, it is vital to avoid “stale” data. Thus, there is a need to update local and national data, with appropriate periodicity. Fifth, the complexity of the questions requires that we capture data capabilities in many dimensions. As a partial listing, we need data in the areas of the environment, medical, attitudes, affiliations, and legal systems. Finally, given the dispersion of the data, it was recommended that we perform an assessment of the desirability of a Federated IW Data Repository. That study should address a variety of issues including classification, access, open source data, legal, granularity, qualitative data, maintenance, and dissemination.

Consistent with the questions posed by senior decision makers (see Table 1 below), there is a need to collect and organize the data of interest. It is anticipated that all of the stakeholders will be involved in this area for the lifetime of this program. As examples, social scientists will provide data on the Human Terrain, operations analysts will play a key role in generating relevant scenarios and vignettes, and the users will provide appropriate contextual data. It is anticipated that eventually this data collection and organization activity will evolve into a knowledge management task.

From a social scientist perspective, they will play a major role in clarifying key definitions, pursuing basic research on IW, developing theories for key issues, and developing meaningful Political, Military, Economic, Social, Infrastructure, and Information (PMESII) Measures of Merit (MoMs). Of course, all the other stakeholders will be involved in these needs, as well.

From an operations analyst perspective, the primary areas of responsibility will be in the development of tools (to include representation in tools and characterization of the ability to explore outcomes) and the design of experiments.

Finally, the users will play a major role in participating in the verification, validation, and accreditation (VV&A) of the products, educating and training of the stakeholders, and supporting outreach (e.g., transitioning IW products to the operational user).

Subsequently, a conference on HSCB Focus 2010 was held in Chantilly, VA, in July 2009. To summarize the data insights that were developed at that event, Dr. Jeff Morrison, CTTSO/TSWG, made the following observations at the conclusion of the conference:

- Useful models need good, reliable data, therefore good data is the key to solving the HSCB problem!
- Data interoperability is a *must*!
- Model development and data collection take time (and will evolve asynchronously)
- Don’t forget the Users!

### C.4 TRAC Studies

Consistent with that theme, TRAC led a study to identify the major gaps associated with IW analyses. Ultimately, they identified the major gaps that gave rise to substantial risks for the analysis community. These risks focused on areas that gave rise to substantial consequences (e.g., catastrophic or critical) that arose frequently. Of these gaps, 34 of the 35 gaps were attributable to a lack of credible data while 20 of the 35 gaps required at least some “soft science” solutions. Subsequently, they initiated an IW Working Group to systematically address the challenges associated with IW analyses.

In addition, an IW conference was held in August 2009 to consider all aspects of IW analyses. The break-out group on assessment was chaired by COL Tom Cioppa, Military Deputy to Dr. Bauman. That meeting noted that data are fragmented, disjointed, and not well organized and managed. As a potential solution, it was recommended that we establish and resource a comprehensive Army data-management program that is not solely focused on lethality.

### C.5 NATO Studies

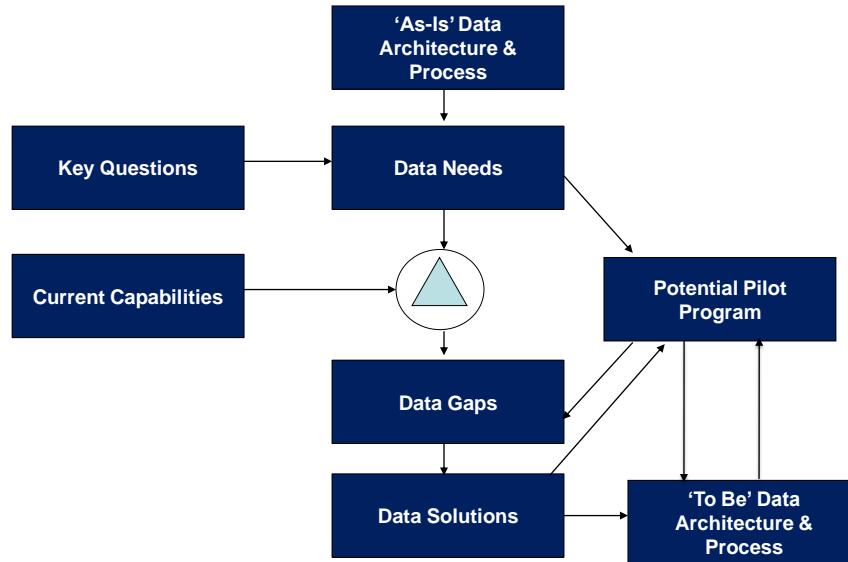
In March 2009, NATO SAS-071 was convened in Ottobrunn, Germany. Working Group 6, on Strategic IW, recommended that we encourage ISAF to collect relevant data needed for evolving tools. In addition, we need to ensure that existing data bases are updated periodically to ensure that they are complete, comprehensive, and relevant. The overall conference concluded that NATO should enhance the data that are available to support IW analyses.

## D. NDU WORKSHOP ON DATA

This section of the paper briefly summarizes the Data Workshop that was held at NDU on November 17, 2009. The purpose of the workshop was to develop recommendations for the IW M&S Senior Coordinating Group (SCG) on how to mitigate key IW data gaps for analysis. To accomplish that goal, 51 Subject Matter Experts (SMEs) were assembled. These included 28 representatives from the Department of Defense, 17 representatives from industry, four members from the Interagency, and two members from non-profit organizations.

To achieve that objective, the workshop began by providing presentations of key operational data systems. Subsequently, we convened breakout groups to address discrete issues.

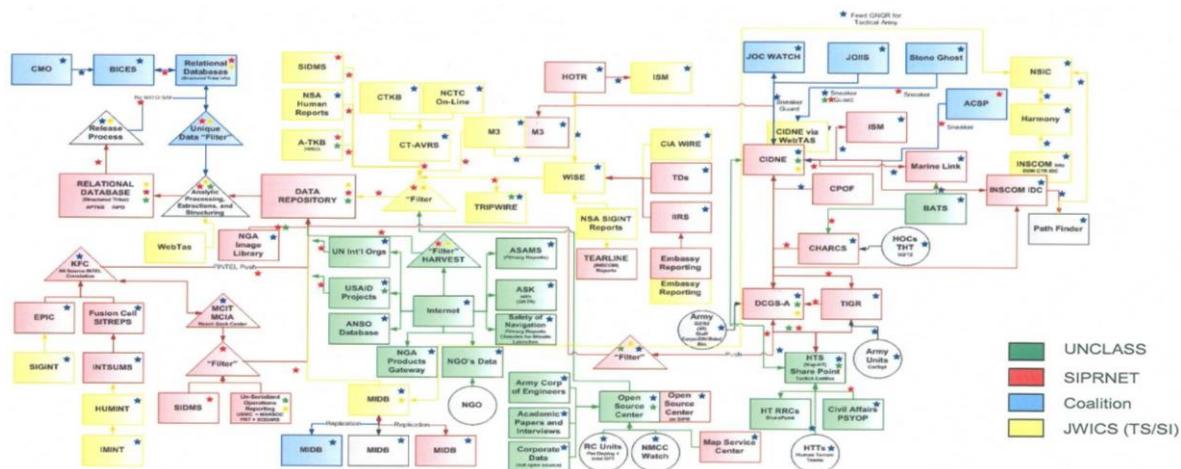
Figure 2 characterizes the approach that was employed during the workshop. Since this was the first in a series of workshops, attention was focused on characterizing the “as is” operational data architecture, assessing key strategic questions, identifying data needs, and characterizing current capabilities. These included presentations on Joint Data System (JDS) perspective / Nature of the Problem; Unrestricted Warfare Analysis Center (UWAC) ; SKOPE; Civil Affairs Operating System (CAOS); Human Terrain System; Humanitarian Information Unit (HIU); Combined Information Data Network Exchange (CIDNE); and Tactical Ground Reporting (TIGR). The remainder of the approach will be pursued in future workshops.



**Figure 2. Approach to the Problem**

Based on the presentations and the subsequent discussion, It was concluded that data on AFPAK are distributed among a number of different stove-piped sources in a variety of structured and unstructured formats with no clear standards or intended purposes. The participants at the workshop observed that there is a lack of data sharing; fragmented situational awareness; non-optimal decision making; and increased costs in terms of resources, assets, credibility, and lives.

As can be seen in Figure 3, there are “islands” of data that characterize the existing architecture. For example, one can discern separate systems and processes that characterize the DoD (e.g., CIDNE, which collects operational reports), Interagency participants (e.g., HIU of the Department of State), and international entities. Many of the supporting data systems associated with the participants and their processes are non-interoperable. Furthermore, participating entities pursue concepts of operation that exacerbate the problem. For example, selected Human Terrain Teams (HTTs) enter their data into the SIPRNET to facilitate interaction with the Brigade Combat Teams. However, most of the HTT data is unclassified. Thus, it is extremely difficult to share that data with Interagency officials, International partners, or non-governmental organizations (NGOs). In addition, many of the data providers input qualitative data. However, creators of IW M&S require quantitative data to achieve their objectives. It is unclear what non-parametric statistical techniques might be employed to support that transformation of selected qualitative data into a more quantitative format.



**Figure 3. Manifestations of the Data Problem**

To focus the discussions, the workshop was subdivided into three break-out groups. Each group was given several of MG Flynn's questions to analyze to identify the data that were needed to illuminate the questions (see Table 1). Based on a clustering algorithm, MG Flynn's questions were aggregated into six broad categories: narrative shaping and strategic communication; economics and corruption; security; situational awareness; Taliban-related; and rule of law, norm building, and governance. Specific insights on the data needed to address selected questions are provided in the Appendix.

**Table 1. MG Flynn's Questions**

Area	Key Questions
Narrative Shaping & Strategic Communication	<ul style="list-style-type: none"> <li>•How is the population informed?</li> <li>•How do they like to be informed?</li> <li>•How does the population respond to strategic communication?</li> <li>•What narratives do the Taliban use to get popular support?</li> </ul>
Economics and Corruption	<ul style="list-style-type: none"> <li>•What is the importance of the poppy trade to the Afghan population?</li> <li>•How does the government corruption impact the Afghan population and its relation to drug trade?</li> </ul>
Security	<ul style="list-style-type: none"> <li>•How will the population respond to the new Stryker brigade that is coming in?</li> <li>•How does the population respond to basic force maneuvering?</li> </ul>
Situational Awareness	<ul style="list-style-type: none"> <li>•How does the population interact as tribes?</li> <li>•How much of the population is affected, disaffected?</li> <li>•What are the preferences of people on a district level?</li> <li>•What efforts have historically been successful on a district level?</li> <li>•What kind of development do people prefer on a district level?</li> <li>•What part of the population is disaffected and why? What is the percentage?</li> <li>•How can we visualize/layer data from geography through population dynamics?</li> </ul>
Taliban-related	<ul style="list-style-type: none"> <li>•How does the population relate to the Taliban as an organization, not as an insurgency? (e.g., how they operate and how people are affected by them as an organization)</li> <li>•How do we split the population away from the Taliban, especially in Helmand /Kandahar?</li> <li>•What tactics of intimidation do they use?</li> </ul>
Rule of Law, Norm Building, and Governance	<ul style="list-style-type: none"> <li>•How does the population define rule of law and justice?</li> <li>•How can we institute a sense of rule of law?</li> <li>•How can the central government more effectively dole out justice to be as swift as Sharia law?</li> <li>•How does the population accept and see governance?</li> <li>•How is the population's historical response to governance, not being governed, and warlordism?</li> </ul>

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During the course of the Data Workshop, four major gaps were identified and explored. First, it appears as if operational data will not fully support the needs of analysts in addressing strategic questions. It was observed that operational data are at the tactical level while many of the key policy issues are at the strategic level. Furthermore, there is an urgent need for standards (e.g., metadata). Finally, clarification is needed on data structure, in transforming from qualitative to quantitative data.

Second, steps should be taken to enhance data discovery. As a foundation, it was noted that needed data are widely distributed (e.g., DoD, Interagency, international, NGO). To deal with this issue, it must be recognized that this is a multidisciplinary, Whole of Society issue.

Third, there is a major issue in integrating the available data. It is postulated that an organization is needed to take responsibility for the data needed to support analysis. This organization should take the lead in developing needed ontologies, metadata, and pedigree. Note that the security classification issue is of particular concern.

Finally, the credibility issue must be addressed. There is little effort to V&V the key data (e.g., accuracy, currency). Consequently, discipline is required to plan for and execute V&V and to implement a configuration control board.

## E. POTENTIAL NEXT STEPS

This section of the paper provides observations on key data needs, identifies the intellectual capital that is needed to address the key issues, provides key thoughts on an appropriate approach, and suggests an organizational approach for further data development. In addition, it briefly assesses MG Flynn's proposal to revise the intelligence process and it identifies selected forthcoming data activities.

## E. 1 Foundation

As a foundation, there is a need to create a data base that characterizes the population for the AoR. Elements of the data base should include, *inter alia*, demographics (district-level description of age, gender, family size, tribal allegiance, language, literacy) and projections (e.g., current, future; lasting factors versus transient factors (e.g., level of affectation)).

To address the issues posed by MG Flynn, it is necessary to assemble a broad array of intellectual capital. Table 2 briefly summarizes the capabilities that are needed.

**Table 2. Key Intellectual Capital**

<b>Area</b>	<b>Key Intellectual Capital</b>
Narrative Shaping & Strategic Communication	<ul style="list-style-type: none"> <li>• Anthropologists</li> <li>• Political Scientists</li> <li>• Sociologists</li> <li>• Demographers</li> <li>• Psychologists</li> </ul>
Economics & Corruption	<ul style="list-style-type: none"> <li>• Experts on drug societies</li> <li>• Economists (focus on corruption)</li> </ul>
Security	<ul style="list-style-type: none"> <li>• Military analysts</li> <li>• Social scientists</li> </ul>
Situation Awareness	<ul style="list-style-type: none"> <li>• Geographic Information System (GIS) specialist</li> </ul>
Taliban-related	<ul style="list-style-type: none"> <li>• Experts on Taliban organization, narratives, tactics</li> <li>• Experts on criminality</li> </ul>
Rule of Law, Governance	<ul style="list-style-type: none"> <li>• Experts on Sharia law; judges; attorneys</li> <li>• Social scientists</li> <li>• Journalists</li> </ul>

Subsequently, the following approach might be pursued. First, assemble a multi-disciplinary team drawing on the intellectual capital cited in Table 2. If organic capability is not available, it is necessary to develop a reach-back capability.

Second, begin to evolve a data base, drawing on inputs from a variety of data sources. These might include inputs from CIDNE, TIGR, CIA information, HTT, Provisional Reconstruction Teams (PRTs), Interagency results (e.g., HIU), and results of academic studies (e.g., demographers). Third, the team should generate a family of MoMs (and the linkage among them). These should include consideration of Measures of Performance, Measure of Effectiveness, and Measures of Policy Effectiveness. Fourth, the team should take advantage of prior analyses and studies. For example, the team might exploit the insights that were developed using the Synthetic Evaluation and Analysis System (SEAS) used in Afghanistan. With this foundation, the multi-disciplinary team should conduct a seminar game (e.g., the Peace Support Operations Model (PSOM)) to develop broad insights into MG Flynn's questions.

Next, the multi-disciplinary team might selectively bring to bear specific tools to address narrower and deeper issues. For example, one of MG Flynn's questions dealt with the challenges associated with strategic

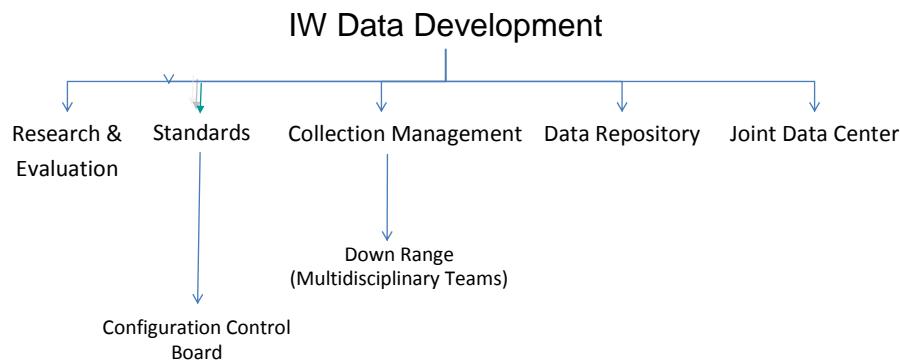
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communication. To address that issue, it might be appropriate to apply one or more of the competing Strategic Communication tools (e.g., Information Operations (IO) Joint Munitions Effectiveness Manual (JMEM) Effectiveness of Psychological Influence Calculator (EPIC); Soar Technology Target Audience Simulation Kit for Influence Operations (TASK – IO); Oak Ridge National Laboratory (ORNL) Cultural & Media Influence on Opinion (CAMIO); Simulex SEAS; Conflict Modeling, Planning & Outcomes Experimentation (COMPOEX) (media model)), surveys or polls (e.g., Gallup); and system dynamic models.

Once results have been generated from selected tools, it is probably useful to replay the seminar game (e.g., using a game-M&S-game paradigm) and to explore sensitivities. As necessary, it is important to initiate research to address specific questions (probably in the areas of social sciences).

The multi-disciplinary team should initiate verification and validation (V&V) at the outset of the initiative and continue the effort for the life of the studies. This requires plans for VV&A and a disciplined process for recording the results. The V&V results should be captured by simple tools (e.g., spider diagrams) to help the accreditor make an appropriate decision. Note that a prior International Command and Control Research and Technology Symposium (ICCRTS) paper on VV&A for societal models should be followed to prepare to perform this vital function (ICCRTS 2008).

Figure 4 provides a point of departure for organizing to acquire and sustain the data needed by analysts. Four points are clear from this organizational chart. First, it is very big job! Second, there is a need for appropriate visualization tools. Third, it will be quite difficult to cope with structured and unstructured data. Finally, many issues remain to be resolved (e.g., metadata, pedigree, classification).



**Figure 4. Organization Chart for Data Development**

## E.2 MG Flynn's Proposal

Recently, MG Flynn, et al (Reference) issued a report entitled “Fixing Intelligence: A Blueprint for Making Intelligence Relevant in Afghanistan”. This report has serious implications for the data that are needed to support future analyses in Afghanistan.

The report notes that the current focus of intelligence is the enemy (i.e., “the overwhelming majority of collection efforts and analytical brainpower (is) on insurgent groups”). Accordingly, these efforts focus on the kinetic dimension of warfare (e.g., improvised explosive devices (IEDs)). In contrast to that approach, MG Flynn suggests that the proposed focus of analysts should be “the people of Afghanistan”. He observes that “our intelligence apparatus still finds itself unable to answer fundamental questions about the environment in which we operate and the people we are trying to protect and persuade (note: see Table )” Thus, he recommends that analyses be expanded to address the non-kinetic dimension of the operation.

Consistent with those observations, the report proposes changes in the data collection and assessment processes. At the “grass roots” (battalion level) it is recommended that analysts will divide their work along geographic lines vice functional lines. In this proposal, analysts will write comprehensive district assessments (e.g., subsuming governance, development, and stability factors) vice functional assessments. To support these analyses, the analysts will draw on a rich source of data, most of which is open source. These data sources include civil affairs officers, Provisional Reconstruction Teams (PRTs), atmospheric teams, Afghan liaison officers, female engagement teams, willing Non-governmental teams, United Nations officials, psychological operations teams, Human Terrain Teams (HTTs), and infantry battalions.

MG Flynn’s report envisions these “grass root” efforts working in conjunction with higher echelon, regional groups. At the regional level, the focus will be on “information brokers”. These “brokers” will organize and disseminate all reports and data gathered at the “grass roots” level. They would work in Stability Operations Information Centers (SOICs), in part to deal with classification issues. They recommend that the SOICs be staffed with “the best, most extroverted and hungriest analysts”.

This provocative concept raises key questions about the analysis teams and the data that the analysis teams should collect. With respect to the analysis team, at least four questions must be addressed. First, do we need an interdisciplinary team (e.g., mix of operations analysts and social scientists)? Second, what should be the composition of the team? Third, what education and training are needed by the analysis team? Note that the report suggests a week of activity in Kabul, but that may not be sufficient. Finally, is it appropriate to implement a reach-back capability to support organic capabilities?

Similarly, there are basic questions about the data that the analysis team should collect. A partial list of questions about the data includes the following. First, should we develop a template for the needed data? What metadata are needed to make sense of the collected data? How does the regional level integrate across the sources of data cited above? How does the collected data relate to the MoMs called out by the senior decision makers? Finally, what MoMs should be used (ranging from Measures of Performance to Measures of Policy Effectiveness).

Overall, the report concludes that “the highly complex environment in Afghanistan requires an adaptive way of thinking and operating”. However, it is important to assess the concept with pilot efforts to explore the various options and to ensure that the concept is sufficiently adaptable.



### E.3 Forthcoming Data Activities

There are several planned activities that may contribute substantially to the quality of Afghanistan data that are available to the analyst.

#### Afghanistan Consolidated Knowledge System (ACK-SYS)

There are at least five polls that are being conducted in Afghanistan by different agencies. At the request of NATO ISAF, the Center for Army Analysis (CAA) is creating a data base that consolidates the available polling data so that all contributing agencies can use the data for analyses. In the longer term, this data base will be expanded to include data types outside of the polling data. Residual issues include the data base interface, the releasability of data, the verification of the data, and the integration with other data bases (e.g., CIDNE).

#### Third MORS Workshop on Irregular Warfare

In April 2010, MORS is convening a third workshop on Irregular Warfare entitled “Improving Analytical Support to the Warfighter: Campaign Assessments, Operational Analysis, and Data Management”. As noted in the Terms of Reference for the workshop “Unfortunately, the data that are collected, stored, and analyzed are not always the right or best data to answer the challenging questions commanders are asking. In many cases, analysts are asked by commanders to provide assessments of the IW campaign, without having the necessary data. While our analysts do their best with what they have, the OR community could probably do a better job of influencing the whole data management process.” Consistent with that statement, working group 1 will consider the subject of data and knowledge management. Among its responsibilities, that working group will address the following questions:

- What are some of the historical mistakes and oversights in the area of data and knowledge management? How do we overcome these?
- How are data sources linked and integrated?

#### Tactical Conflict Assessment and Planning Framework (TCAPF)

In 2006, USAID began the program entitled “Tactical Conflict Assessment and Planning Framework (TCAPF)”. The overall objective of the program was to overcome key obstacles to stabilization. As an example, the program was designed to deal with the lack of a standardized assessment process and the failure to make the local population the focal point.

To address these obstacles, the program is designed around four key questions. In each case, the questions are to be followed by “why?” The four key questions are as follows:

- Has the number of people in the village changed in the last year?
- What are the most important problems facing the village?
- Who do you believe can solve your problems?
- What should be done first to help the village?

## F. SUMMARY

There is broad agreement that we have a major IW data problem for the analysts. To address this problem, it is recommended that MG Flynn’s questions be aggregated into clusters. To address these clusters,

multidisciplinary teams are needed. As a point of departure, an immediate effort is needed to evolve a data base that characterizes the population for the AoR. Subsequently, a methodology is suggested that features meaningful MoMs, mining prior analyses (e.g., SEAS results), pursuing a game-M&S-game paradigm, applying appropriate M&S tools, and pursuing research to deal with key unresolved issues. Subsequently, the process should be iterated to converge to answers that are useful for senior decision makers.

To address the residual issues, several additional workshops are planned on the subject. In the next workshop, International participation will be a key to provide a broader view of the problem.



### Appendix: Taliban-Related Issues

To illustrate the assessment of MG Flynn's questions, the following section discusses the deliberations for Taliban-related issues that occurred at the NDU workshop on data.

The breakout group for the "Taliban-related" questions decided that the title for this set of questions was inappropriate. Given the nature of the heterogeneous adversaries, it was suggested that the questions be re-labeled as "Adversary Related". This reflects the fact that the Pakistan Taliban are seeking world-wide jihad while the Afghanistan Taliban seek to "get NATO forces out" of the country. In addition, there is great concern about the criminal element that is infecting Afghanistan (e.g., drug-related). Their objective is to maximize profits and their *modus operandi* is not well studied.

One of the challenges posed by MG Flynn was to get a non-western perspective. To achieve that objective, the breakout group concluded that it was important to conduct more open-ended social science-oriented studies. It was observed that Afghans are "survey fatigued". Thus, it was recommended that we use alternative techniques to get them to express their perspectives. For example, it might be useful to get them to write poems to communicate their views. In addition, it was important to get alternative perspectives from the other stakeholders. For example, it was noted that it would be useful to get an annotated map of the situation as seen by NGOs and nations from ISAF.

The "bottom line" is that our current techniques are probably providing the wrong answers. It was emphasized that Afghans are unlikely to tell the truth until they know you.

The breakout group observed that there are several key areas to address. First, it was emphasized that aggregating across Afghanistan geography is probably not very useful. It is important to understand the local situation (note: as stated by the group: "one size does not fit all"). Second, it would be very useful to augment our assessment by conducting Social Network Analyses. For example, we might focus on those individuals that appear in the periphery of the analyses, vice the individuals who are closest to the key subjects. Finally, it was observed that we need to conduct social science studies of key rituals (e.g., marriage, death, labor exchange). These studies would suggest innovative solutions to many of our problems. For example, marriage rites are normally conducted among cousins with associated bridal costs. The Taliban could provide alternative options that might be more attractive to the younger generation.

In addition, there was a discussion about the residual issues associated with HTTs. Typically, these HTTs are extremely responsive to the Commanders of Brigade Combat Teams. Consequently, they tend to be very problem focused, very constrained, and tend to lack a long term research agenda. However, it was noted that all HTTs are different.

Ultimately the following approach was proposed to address MG Flynn's questions. First, it is necessary to get scientists involved in *long term studies*. Second, we need to pursue a new way of doing ethnography during warfare. Third, we need to implement new ways of training participants in data gathering. For example, new training techniques are needed for Civil Affairs personnel and key operators. As a point of departure, we should develop lessons learned from the NPS data collection effort in Bangladesh.

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